

and 31/03/2010, were identified through examination of electronic patient records. Exclusion criteria included patients with atrial flutter (AFL), or an ICD10 code indicating prior inpatient attendance for AF since 1995. Patient notes were reviewed manually and an anonymised data collection template completed by the clinician for analysis. **RESULTS:** Of the 126 patients meeting the inclusion criteria, the notes of 7 patients were unobtainable and 8 with a diagnosis of AFL were excluded. The majority of patients were symptomatic at presentation (56%) and less than half were male (41%). Within the study population, the frequency of patients with AF increased with age, peaking at 80-89 years (45% of the study sample). Method of admission was primarily through A&E or GP referral (48% each); with 50% of A&E admissions being for symptomatic AF, compared with 60% of those referred via a GP. Almost half the study population were recorded with "first detected AF" (47%); 67% of whom were symptomatic, compared to 47% being symptomatic in patients recorded as "not first detected AF". The majority of patients were reported to have 1 or 2 of the pre-defined co-morbidities of interest (29% each); one fifth had no co-morbidities. The most common co-morbidities were hypertension (51%), ischaemic heart disease (20%), heart failure (18%), diabetes (16%) and pulmonary disease (15%). **CONCLUSIONS:** Results from this study demonstrate the majority of patients presenting to secondary care with AF have multiple associated co-morbidities, which are known to influence the management and treatment strategy, and long-term complications. Further up-to-date epidemiological studies, which describe the history, management and prognosis of patients with AF, are required.

PCV26

REAL WORLD ADD-ON AND SWITCH PATTERNS FOR PLATELET AGGREGATION INHIBITORS

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OBJECTIVES: To analyze the add-on and switch patterns for patients who dispensed platelet aggregation inhibitors, excluding heparin (acetylsalicylic acid, clopidogrel, and dipyridamole) in the South-West region of Sweden. **METHODS:** This was a retrospective database study of medication utilization amongst patients from the South-West region of Sweden (1.5 million inhabitants). All patients who dispensed platelet aggregation inhibitors (B01AC), excluding heparin, from 2006 to 2009 were included in the study. A dispatch was classified as new, switch, add-on, or continuation. All dispatches were annotated, at the ATC level, as either new (no other anticoagulant within 105 days), add-on (another anticoagulant dispatched both before and after), switch (another anticoagulant dispatched before, but not after), or continuation (dispatched same ATC-code within 105 days). **RESULTS:** 163 330 patients had at least one B01AC filled prescription. The total number of dispatches for these patients were 3 327 499. 96% of all patients had been dispatched acetylsalicylic acid (ASA), 11% clopidogrel and 6% dipyridamole. ASA was dispatched as a new prescription in 17% of all dispatches, in <0.5% as add-on, <0.5% as switch, and in 83% as continuation. For clopidogrel the distribution was 17% (new), 4% (add-on), 3% (switch), and 77% (continuation). For dipyridamole the distribution was 7%, 18%, 8%, and 68%. **CONCLUSIONS:** Not surprisingly ASA was by far the most common treatment. ASA and Clopidogrel both had first line treatment profiles, of which it was most pronounced for ASA (<1% add-on or switch). Dipyridamole is used more as an add-on or switch therapy with 18% as add-on, 8% as switch, and only 7% as new dispatches.

PCV27

FREQUENCY OF ADVERSE DRUGS EVENTS (ADES) AS POSSIBLE CAUSES OF REQUEST OF DRUGS NOT INCLUDED IN ESSENTIAL MEDICINES LIST IN COLOMBIA

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OBJECTIVES: To describe the frequency of adverse drugs events (ADEs) as possible causes of request of drugs not included in essential Medicines list in Colombia **METHODS:** This was a retrospective, descriptive study developed in a private medical insurance company in Bogota, Colombia. Data were obtained from drug request form of drugs not included in a national essential Medicines list. We analyzed the content of the notes to identify the records related to the occurrence of ADEs in the period 2005 to 2008. Information concerning the adverse event and the drug involved was recorded in a data collection instrument developed by the researchers. The pharmacological classification of drugs was performed according to the Anatomical Therapeutic Chemical Classification System (ATC). Univariate descriptive statistical analysis was performed **RESULTS:** A total of 116 cases of ADEs were detected. The level 1 groups of the ATC of drugs with greater frequency of ADEs were the cardiovascular agents (66; 47.15%), nervous system agents (34; 23.7 %) and antineoplastic and immunomodulating agents (21; 14.7 %). The great majority was cases of light severity (89; 62.7 %) and classified as possible (66; 48.4 %). **CONCLUSIONS:** We conclude that our study encourages the private medical insurance companies in developing countries to design pharmacovigilance programs; recognizing the importance of looking for new sources of report of adverse reactions to diminish the under-notification of ADEs.

PCV28

CONTROL OF HYPERTENSION IN SPAIN: A SYSTEMATIC REVIEW AND META-ANALYSIS OF 76 EPIDEMIOLOGICAL STUDIES ON 341,632 PARTICIPANTS

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OBJECTIVES: Hypertension is a leading global risk factor for the burden of cardiovascular disease. Data about changes in hypertension control are important to set

intervention priorities. We conducted a systematic review and meta-analysis of epidemiological studies to determine the control of hypertension in Spain over the last decade. **METHODS:** A search of PubMed/MEDLINE, SCOPUS and IME was performed for epidemiological studies conducted in Spain (since 2000) with data on control rates for hypertension. The primary outcome was the prevalence of uncontrolled hypertension defined as the percentage of patients having systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg. For populations at risk (e.g. patients with diabetes), the definition was SBP ≥ 130 mmHg and/or DBP $\geq 80-85$ mmHg. Pooled-prevalence estimates and 95% confidence intervals (95% CI) were determined by random-effects models using the inverse variance method. Heterogeneity was assessed using Cochran's Q and I² statistics. **RESULTS:** Seventy-six studies evaluating 341,632 patients (79% with hypertension) met the inclusion criteria. Among hypertensive patients, the overall pooled-prevalence of uncontrolled hypertension ($\geq 140/90$ mmHg) was 67.0% (95% CI: 64.1% to 69.9%), but was 87.6% (95% CI: 86.2 to 89.0%) when the most restricted definition ($\geq 130/80-85$ mmHg) was used for patients at risk. The test for heterogeneity was significant ($P < 0.001$). Using meta-regression analyses, we showed that the prevalence of uncontrolled hypertension did not change significantly over time, but the percentage of patients receiving at least two antihypertensive drugs increased ($P = 0.032$, and 0.001). **CONCLUSIONS:** In Spain, the control of hypertension is far from optimum and does not appear to have improved in recent years despite the increased intensity of therapy. Patients at risk with comorbidities appear to be controlled worse.

PCV29

RECENT IN-HOSPITAL MORTALITY TRENDS AMONG PATIENTS WITH HEART FAILURE IN THE NETHERLANDS

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OBJECTIVES: Recent in-hospital mortality data among heart failure (HF) patients in the The Netherlands are lacking. This study described in-hospital mortality rates among HF patients in the The Netherlands from 2005 to 2009. **METHODS:** The PHARMO database network includes, among other things, hospitalization records of approximately 3.2 million residents in the The Netherlands. From this database, all patients with a hospitalization for HF between 2005 and 2008 were selected. The date of the first HF admission was defined as the index date. Patients hospitalized for HF in the 12 months prior to index date were excluded. Patients were followed from index date until end of data collection, death, or a maximum of 12 months, whichever occurred first. Crude mortality rates over time were determined during index HF admission, any HF readmission, and during any all-cause readmission. **RESULTS:** The study included 9786 patients with an index HF admission. Mean (\pm SD) age was 77 (± 11) years and 52% were female. During index HF admission (mean (\pm SD) length of stay (LOS): 11 (± 10) days) 10% of patients died. Hence, 8,850 patients were at risk for readmission. During follow-up, 1,563 (18%) patients were readmitted for HF and 4,542 (51%) patients had an all-cause readmission. In-hospital mortality during HF readmission (mean (\pm SD) LOS: 11 (± 9) days) was also 10%. In-hospital mortality during all-cause readmission (mean (\pm SD) LOS: 7 (± 11) days), was 5%. Mortality rates over time from 2005 to 2009 were stable. Mean (\pm SD) number of days between hospital (re)admission and death was 10 (± 13) days for the index HF admission and 12 (± 12) days for both HF readmission and all-cause readmission (12 (± 15) days). **CONCLUSIONS:** In most recent years, in-hospital mortality remains unchanged with 10% of HF patients dying during HF admission.

PCV30

HEART FAILURE (RE)ADMISSIONS IN THE NETHERLANDS: RATES, LENGTH OF STAY AND COSTS

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OBJECTIVES: Hospital admissions are common among heart failure (HF) patients and contribute to the significant clinical and economic burden of HF. This study determined rates, length of stay (LOS) and costs of HF (re)admissions. **METHODS:** The PHARMO database network includes, among other things, hospitalization records of approximately 3.2 million residents in the The Netherlands. From this database, all patients with a primary hospital discharge code for HF between 2005 and 2008 were selected. Date of first HF admission was defined as index date. Patients hospitalized for HF in the 12 months prior to index date were excluded. Patients were followed from index date to end of data collection, death, or a maximum of 12 months, whichever occurred first, in order to assess primary hospitalizations for HF within one year, i.e. HF readmissions. Main outcomes for each identified HF (re)admission were LOS (in days) and costs per (re)admission (amount paid in €). **RESULTS:** The study included 9,786 patients with an index HF admission. Mean (\pm SD) age was 77 (± 11) years and 52% were female. Mean (\pm SD) LOS was 11 (± 10) days and mean (\pm SD) hospitalization costs of index HF admission were €8,650 (\pm €9,100). During the index HF admission 936 patients died, therefore 8,850 patients were at risk for a HF readmission. Of those patients, 1,563 patients were readmitted for HF within one year. Overall, one-year HF readmission rate was 21.8 per 100 person years. Mean (\pm SD) LOS of first HF readmission was 10 \pm 10 days and mean (\pm SD) hospitalization costs of first HF readmission were €8,850 (\pm €8,450). **CONCLUSIONS:** One fifth of patients hospitalized for HF in the The Netherlands have a subsequent HF admission within one year. Overall, costs of index HF admission and first HF readmission are similar.